

nih record

Marrow Transplant Success Makes Poster Child of Employee's Son

By Rich McManus

According to his father, Jaiden Thomas, 3, was going to be a poster child for something in life—football, music, track and field or just the sheer exuberance of living. After all, the kid is irrepressible.

“He once saw a commercial on TV for a football game,” recalls Ufundi Thomas, a property accountable officer for NIDDK in Bldg. 8, “and as soon as it was over, Jaiden pretended to be the quarterback, hunching down over center, taking the snap and taking a 3-step drop back to pass. It was amazing.”

Jaiden has also amazed medical authorities by clearing a daunting set of hurdles.



Ufundi Thomas (r), a property accountable officer for NIDDK, plays with his son Jaiden, whose health was restored thanks to a bone marrow transplant.

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ABOVE • Jaiden Thomas is a poster child for the benefits of marrow transplant. See story on p. 1.

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New Technique May Offer Fertility-Sparing Option to Cancer Survivors

By Robert Bock

Researchers funded by NICHD have developed a new technique that may provide a fertility-sparing option for women with cancer and other women at risk of infertility.

Although males can store sperm at a sperm bank, no comparable option exists for women. A woman's eggs seldom survive the freezing and subsequent thawing that stored sperm undergoes prior to fertilization.

The new technique, developed and tested in mice, involves culturing the tiny sac, or follicle, that gives rise to an egg cell, in a gelatin mixture derived from algae. After treatment with hormones, the follicle matures, releasing the egg which can then be fertilized and implanted in a female mouse, resulting in pregnancy and birth.

Unlike mature eggs, follicles can survive the freezing process, making them excellent candidates for long-term storage.

SEE **FERTILITY**, PAGE 4

Symposium Spotlights Pioneering Progress, Sept. 19 in Masur

There won't be any covered wagons, but at the second annual NIH Director's Pioneer Award Symposium on Tuesday, Sept. 19, the frontier will take center stage. The scientific frontier, that is.

The Pioneer Award program, launched in 2004 as part of the NIH Roadmap for Medical Research, supports exceptionally creative scientists who take highly innovative approaches to major challenges in biomedical research. NIH made 9 awards in 2004 and 13 more in 2005.

“The recipients of the NIH Director's Pioneer Award represent some of the brightest minds in science addressing high-risk and potential high-impact research,” said NIH director Dr. Elias Zerhouni. “This symposium offers a rare opportunity to hear about their exciting progress in a broad spectrum of cutting-edge areas, from infectious disease to human behavior.”

The symposium takes place in Masur Auditorium, Bldg. 10. Attendance is free and

SEE **PIONEER**, PAGE 8



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briefs

Symposium on IL-15, Oct. 30

The Center of Excellence in Immunology, NCI and the cytokine interest group are co-sponsoring a 1-day mini-symposium titled, "IL-15: Basic Research and Clinical Applications," from 8:45 a.m. to 4 p.m. on Monday, Oct. 30 in Lipsett Amphitheater, Bldg. 10. Drs. Tom Waldmann and Howard Young are chairing the meeting and speakers include Drs. Michael Caligiuri, Averil Ma, Cliff Lane, Jay Berzofsky, David Weiner, Nick Restifo and Bana Jabri. There will also be a panel discussion on "Getting IL-15 to the Clinic." There is no fee and registration can be done online at <http://web.ncicrf.gov/events/IL15/>. Seating is limited to 260, so early registration is encouraged. For more information, contact Karen Kochersberger at kkochersberger@ncicrf.gov or (301) 228-4027.

NIH Institute Relay, Sept. 21

The 23rd NIH Institute Challenge Relay will be held on Thursday, Sept. 21 in front of Bldg. 1, beginning at 11:30 a.m. This year's race will be held in memory of Art Fried, former budget officer at NICHD who died last December. Fried was among the founders of the relay and participated for many years. The relay consists of teams of five runners, each whom runs a half-mile loop around Bldg. 1. All institutes, centers, divisions and contractors are invited to enter as many teams as they wish. Each team must have men and women runners with at least two runners of the same sex. There is a \$10 entry fee per team. Email Randy Schools (schoolsr@ors.od.nih.gov) with team name and participants. Volunteers are also needed; call Julie Harris at (301) 496-6061 or email harriju@ors.od.nih.gov if you can help.

Ask the Parenting Specialist

The popular "Ask the Parenting Specialist" is returning to campus. Sponsored by the NIH child care board and the ORS Division of Employee Services, these lunchtime opportunities offer employees a chance to talk to a child development specialist, ask those vexing questions and get practical and common-sense advice. They will be held in various NIH cafeterias.

Do you have questions about your infant, pre-school child, school-age child or teen? Questions like "How do I get my child motivated in school and home?" "What do I do about my toddler who refuses to sleep in his own bed?" "My teenager is driving me nuts—how am I supposed to deal with her?"

Come in for a free 10-minute session from 11:30 a.m. to 1:30 p.m. on the following dates; no appointment is necessary:

Tuesday, Sept. 19—Bldg. 31 cafeteria

Thursday, Oct. 12—Bldg. 10 cafeteria

Wednesday, Nov. 8—Bldg. 35 cafeteria

Learn about other parenting resources offered to NIH employees. Sign language interpreters will be provided. For more information call Mary Ellen Savarese at (301) 402-8180.

Class on Clinical Research Ethics

The Clinical Center department of clinical bioethics will offer "Ethical and Regulatory Aspects of Clinical Research," a 7-week course that meets between 8:30 and 11:30 a.m. in Lipsett Amphitheater, Bldg. 10 each Wednesday from Oct. 4 through Nov. 15. The course is in its 9th year. There is no charge, but there is a required textbook: *Ethical and Regulatory Aspects of Clinical Research: Readings and Commentary*, JHU Press, available at the FAES book store on campus or from book stores.

The course will be videocast live on the NIH web site. There is no need to register for the course unless you are seeking a certificate for training purposes or you wish to earn continuing education credits as a social worker, nurse or physician. In order to earn any continuing education credits there are attendance requirements. The course is required to earn the Clinical Center core curriculum certificate. You must register and there are attendance requirements in order to earn the certificate.

For information on registration, course agenda, educational goals and speaker list, visit www.bioethics.nih.gov. Sign language interpreters will be provided. Individuals with disabilities who need reasonable accommodation to participate should contact Mertis Stallings, mstallings@cc.nih.gov. Federal TTY Relay number is 1-800-877-8339.

Tae Kwon Do Beginner's Class

The NIH Tae Kwon Do School is offering a beginner's class for adults and mature teens. New students are invited to begin classes on any Monday. The curriculum combines traditional striking arts, forms and sparring with emphasis on self-defense. No experience is necessary. Class will meet in the Malone Center (Bldg. 31C, B4 level, next to the NIH Fitness Center) from 6 to 8 p.m. on Mondays and Wednesdays (and 6-7 p.m. Fridays, optional), and will continue for about 2 months until participants can be integrated into the regular school training. Dues are \$40 per quarter and a uniform costs \$30. Interested persons are welcome to watch regular training sessions. For information call Pam Dover, (301) 827-0476 or visit <http://www.recgov.org/r&w/nihtaekwondo.html>.

nih record

NIH Scientists, Grantees Honored by White House

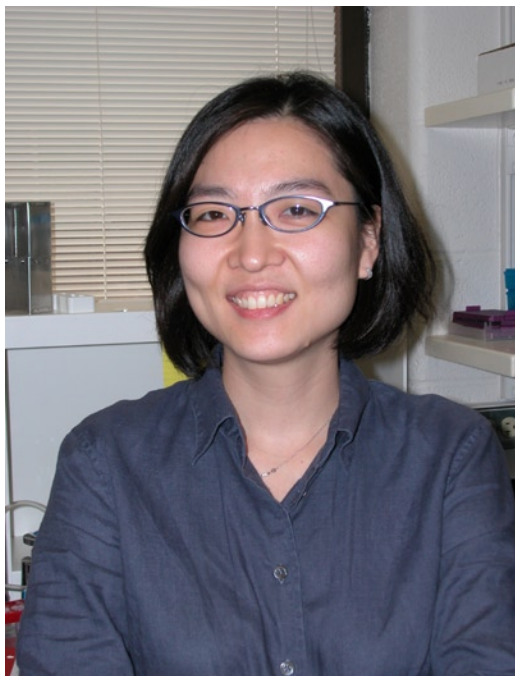
Two intramural scientists and 10 grantees are among the 56 researchers who have received the 2005 Presidential Early Career Awards for Scientists and Engineers, the nation's highest honor for professionals at the outset of their independent research careers. The honorees were feted July 26 at a ceremony presided over by John H. Marburger III, science advisor to the President and director of the White House Office of Science and Technology Policy.

The intramural scientists are Dr. Sohyun Ahn of the Laboratory of Mammalian Genes and Development, NICHD, and Dr. Daniel Appella, an investigator with the Laboratory of Bioorganic Chemistry, NIDDK.

Ahn, principal investigator in the unit on developmental neurogenetics in her lab, works on adult neural stem cells and the way they are regulated in the mature brain. She focuses on Sonic Hedgehog-responding cells in the mouse forebrain. Sonic Hedgehog signaling is involved in various aspects of embryonic development; Ahn's study of the behavior of neural stem cells provides *in vivo* evidence that they self-renew and generate multiple cell types. "We are just starting out here," she says; her lab renovation was completed in March 2006. She sees the PECASE as "an honor, a pat on the back, hoping we have the same potential to do as well as or better than we've done up to now."

Appella is a synthetic organic chemist working at the interface of chemistry and biology. "In a nutshell," he explains, "I make molecules with biological activity, and one reason NIH is a great environment is that there are lots of opportunities to test them." One class of these molecules binds selectively with DNA and RNA sequences. He is trying to couple this with a very sensitive detection of pathogens—in particular, anthrax. He also makes molecules targeted to HIV as well as cancer. "Chemistry could have a great impact on many aspects of the intramural program," he says. "In general, chemical approaches provide a way to start thinking about new therapies and treatments, which could help in the translational aspects of the work at NIH."

The grantees include Drs. Karl Deisseroth of Stanford, Kathryn Derosé of RAND Corp., Debra Furr-Holden of Pacific Institute for Research and Evaluation, Nace Golding of the University of Texas, Beatriz Luna of the University of Pittsburgh, Tannishtha Reya of Duke University, Kevin Sanbonmatsu of Los Alamos National Laboratory, Melanie

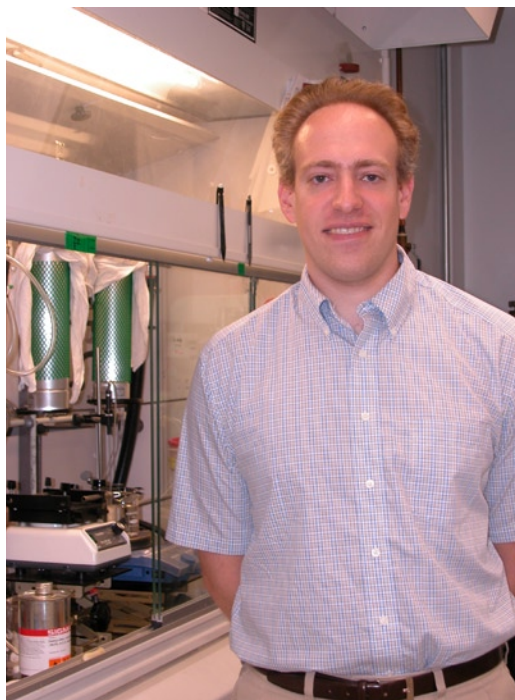


Top:

Dr. Sohyun Ahn, principal investigator in the unit on developmental neurogenetics, Laboratory of Mammalian Genes and Development, NICHD

Bottom:

Dr. Daniel Appella, an investigator with the Laboratory of Bioorganic Chemistry, NIDDK



Sanford of the University of Michigan, Neal Silverman of the University of Massachusetts and Bruce Yu of the University of Utah.

The PECASE awards, established in 1996, honor the most promising researchers in the nation within their fields. Nine federal departments and agencies annually nominate scientists and engineers whose work shows exceptional promise. Participating agencies award these researchers up to 5 years of funding to further their investigation. 🔗

FERTILITY

CONTINUED FROM PAGE 1



Dr. Louis De Paolo, chief of NICHD's Reproductive Sciences Branch, is project officer for the study.

"This achievement opens up a new realm of exciting possibilities, from preserving fertility for patients, to protecting endangered species," said NIH director Dr. Elias Zerhouni. "This interdisciplinary effort—between materials scientists and reproductive specialists—yielded a promising new technique that researchers from either field, if working alone, probably would not have developed."

Where earlier attempts had failed, the new technique succeeded because it involved injecting the follicle into the gelatin mixture, providing 3 dimensions of support for the developing follicle. The gelatin mixture was specially engineered to allow reproductive hormones and growth factors to reach the follicle.

In previous attempts, follicles were cultured on a flat surface. The 2-dimensional culture method and resulting lack of physical support for the follicles failed to yield eggs that could achieve fertilization.

The article describing the accomplishment was published online recently in the journal *Tissue Engineering*. The research was conducted by Dr. Teresa K. Woodruff and colleagues at the Center for Reproductive Research at Northwestern University. Materials scientist Dr. Lonnie Shea, also at Northwestern, designed the gelatin mixture to culture the follicles. The center is part of an NICHD program that promotes multidisciplinary interactions between basic and clinical scientists in the reproductive sciences.

Recent advances in cancer treatment have greatly improved survival rates for patients, explained the project officer for the study, Dr. Louis De Paolo, chief of NICHD's Reproductive Sciences Branch. According to one estimate, as of 2001, an estimated 10 million Americans had survived cancer. Unfortunately, however, radiation and chemotherapy used to treat cancer can damage reproductive tissues and leave survivors infertile.

"Right now, the only feasible option for women facing the prospect of infertility is *in vitro* fertilization and long-term storage of embryos," De Paolo said. "But this option is not suitable for women who have not yet decided whether they want to start a family."

With the new technique, a small section of the ovary could be removed and frozen for later use. Studies with both lab animals and human beings show that ovarian tissue containing follicles can be successfully frozen and revived.

If the technology is successfully adapted for human use, the frozen follicles could be thawed and then cultured in the gel at a time when a woman is ready to begin a family. The eggs that result from the culture could then be fertilized with the partner's sperm and implanted in the uterus to establish a pregnancy.

De Paolo noted that, as with any other advance, the technique needs to be confirmed by other researchers. He added that, at this point, a few technical barriers remain, but these can most probably be overcome. Human follicles are larger than mouse follicles and take longer to mature. Researchers would need to recalibrate the dose and duration of the hormones needed to foster the egg's release. They would also need to adjust the gelatin mix to accommodate the larger follicle size.

Currently, Woodruff and her colleagues are working to adapt the technique to human beings as well as to rhesus monkeys, cows, dogs and cats. The researchers hope to apply what they learn in monkeys and cows to their work with human ovarian tissue. The technique could also be used in breeding programs for laboratory monkeys and in cattle breeding, preserving reproductive tissues from a female with desired characteristics.

The work with dogs and cats, undertaken with the National Zoo in Washington, D.C., serves as a prototype for endangered species. The researchers hope to adapt the technique to preserve reproductive tissue from such rare animals as Siberian tigers and Mexican wolves.

In addition to cancer patients, De Paolo sees other women benefiting from the technology, such as women with reproductive disorders like endometriosis, which increases the risk for infertility.

Originally, the researchers began work on the technique so they could observe the process by which the egg matures.

"What we hope to understand at a fundamental level is how follicles transition from various stages of development," Woodruff said.

However, such basic science observations may also have applications for the treatment of human infertility.

Currently, women undergoing fertility treatments must receive hormones that stimulate ovulation. With the new technique, ovarian tissue could be removed and the follicles could be placed in culture to mature. This would do away with the need for fertility patients to receive ovulation-inducing hormones.

Dr. Lonnie Shea and Dr. Teresa K. Woodruff of Northwestern University collaborated on the fertility study.



The technique might also improve the odds that a successful pregnancy would result. When treating infertile couples, reproductive health specialists typically harvest several eggs and create many embryos. To increase the odds of establishing a successful pregnancy, doctors may implant more than one embryo into the uterus at the same time. Implanting more than one embryo may result in a pregnancy with twins or triplets. Such multiple pregnancies increase the chances of premature birth, which increases the risk of such life-long complications as mental retardation, learning disabilities, cerebral palsy and blindness.

Currently, most infertility clinics create a large number of embryos. Most of the embryos are placed in long-term storage. If pregnancy doesn't result after the first implantation attempt, then doctors can make more attempts. Often, several attempts may be needed to establish a pregnancy.

In preliminary observations, Woodruff has found that follicles differ in how they respond to the hormones that foster release of the egg. Some follicles appear to give rise to healthier eggs that have a greater chance of developing into an embryo than do eggs from other follicles. With the new technique, it may one day be possible to choose eggs that have the greatest chance of leading to a pregnancy. This might allow a pregnancy to be established by implanting only one embryo at a time, with only one or two attempts, doing away with the chances of establishing a multiple pregnancy. If the new method increased the chances that early implantation attempts could successfully establish a pregnancy, this would eliminate the need to create a large number of embryos for storage. 12

NIH Fire Department Adds Hazmat to Pact with County

When someone in Montgomery County calls for fire fighters, a 911 dispatcher immediately sends help from any of several local fire stations to the scene. In what is called a mutual aid agreement, equipment can respond from any firehouse in the county, including federal stations like Walter Reed, National Naval Medical Center and NIH. Once first responders are on the scene, the squads look to the most experienced and best-trained team to take the lead and clear the problem. The agreement is the same for all emergency services—for example, ambulance, fire, hazardous materials (“hazmat”) or tower ladder/rescue. Early this year, the NIH Fire Department became the lead team for resolving critical incidents involving hazmat that occur in off-campus laboratory facilities.

“Chief [Gary] Hess decided NIH should play a more involved role in these types of situations,” explained Ken Chaplin, assistant chief of the NIH Fire Department. “We have such a wide variety of situations we deal with here on campus that everyone is cross-trained already in all of the services—fire fighting, emergency medical technicians and hazmat. We’re a pretty diversely trained group. It just made sense for us to coordinate things between the institutes involved in the off-campus facilities and the county resources. [The agreement] reduces the amount of people and resources to only what is really needed to clear up the problem. It also reduces the time that [incident-affected] NIH personnel are away from their labs and work areas.”

The NIH Fire Department responds to about 2,500 emergency calls annually. Approximately 400 of those are hazmat-related. NIH has labs in seven off-campus facilities. Chaplin says a minimum of 10 fire fighter/technicians are on duty at the firehouse at any time. Although it’s likely that just a four-person team would be sent initially to an off-campus hazmat emergency, all 10 staff on duty are hazmat-technician/specialist trained.

The recent upgrade to the aid agreement won’t change procedures at all, Chaplin explains. With NIH located in the heart of Montgomery County, NIH’s fire department has always been on call for primary dispatch to hazmat incidents along with all other county units and all federal stations in the vicinity. [Besides NIH, Walter Reed and Navy Medical, other government stations nearby include Naval Surface Warfare Center-Carderock and National Institute of Standards and Technology.]

“Coordination is the biggest reason for updating the agreement formally,” he concluded. “We’ve basically been responding first anyway, because we are very familiar with handling these types of lab incidents.”—Carla Garnett

Center for Cord Blood™
At the National Marrow Donor Program®

Join us in thanking
the **45,000** moms
who are making
**cord blood
transplants
possible!**



Top:
*Jaiden kisses his mother
Tennille in a 2006 poster
sponsored by the National
Marrow Donor Program.*

Below:
*Jaiden was 2 when he posed for
publicity photos, but is now 3
and attending preschool.*

MARROW TRANSPLANT

CONTINUED FROM PAGE 1



PHOTOS COURTESY NATIONAL MARROW
DONOR PROGRAM

A survivor of two bone marrow transplants—the second involving a brush with death—the boy, who was born with a rare disease, is now thriving. Jaiden was recently named the National Marrow Donor Program's poster child for 2006.

He was born in June 2003 “and the first few months seemed normal,” said Thomas. In October of that year, Jaiden developed a serious case of vomiting and diarrhea, prompting his parents to bring him to Laurel Regional Hospital near their home in Laurel, Md.

“They couldn't find anything wrong with him, so we brought him home,” Thomas recalled. The same symptoms recurred a month later, and again Thomas took his only child to the hospital. “They put him through every test imaginable and still couldn't find anything wrong.”

When the symptoms arose a third time in December, Thomas and his wife Tennille, a social worker for the District of Columbia, sought help at Children's National Medical Center in D.C. Doctors there noticed an unusually high concentration of a certain protein in Jaiden's urine. Soon thereafter, they reached a diagnosis—IPEX (inherited polyendocrinopathy X-linked) syndrome, a disorder apparently caused by a mutation to the FOXP3 gene and generally fatal to males within the first year of life.

“Basically, his immune system treated his body as if it were foreign, and started to attack itself,” Thomas said. The disease affected Jaiden's kidneys, pancreas, skin and other organs as it progressed.

The boy was hospitalized for virtually all of 2004, chiefly because he could be fed only via catheter, and because he underwent two bone marrow transplants from unrelated donors. The first, undertaken in March 2004 with cord blood, was rejected, but the second, which took place in September with hematopoietic stem cells and a better match, worked completely, though not without complication. Shortly after the second procedure, Jaiden's lungs filled inexplicably with blood. “We almost lost him,” said Thomas. But doctors put him on an ECMO (extracorporeal membrane oxygenation) machine as a last resort and four days into the lung-bypass procedure, which was initially expected to last at least 2 weeks, Jaiden recovered and was taken off the machine.

“He awoke one day like it had never happened and started playing with his toys,” Thomas said. “They couldn't find out why it happened and there was no evidence of any lingering problems.”

Thomas said that arranging the transplants was surprisingly stress-free. The National Marrow Donor Program found useable matches for Jaiden almost instantly, within a day. He added that the ordeal of year-long hospitalization was not as burdensome as it sounds: “To be honest, it wasn't that stressful,” he said. “We prayed about it, and left it in God's hands.”

The family also had extraordinary support, both from extended family members and from coworkers. Thomas said that almost everyone in Bldg. 8 knew about Jaiden and kept up with his progress. They also raised funds to help defray the family's expenses. In addition, Thomas's



The Thomases enjoy a family moment.

father came down from Camden, N.J., to live with him and Tennille throughout Jaiden's hospitalization, and his mom visited almost every other weekend. Ufundi and Tennille took turns staying overnight at Children's during 2004, alternating home and hospital duties.

Jaiden now stands 3 feet, 2 inches tall, weighs 45 pounds "and basically picked up where he left off before he got sick," said Thomas. "This is a kid who ran before he learned to walk. He loves running, he loves football, he loves to sing and play instruments. He's a very, very happy kid. He smiles all the time. He has no fear of anything. He jumps off the steps. He jumps off the couch."

Although still dealing with diabetes type 1, hyperthyroidism and mild hypertension, Jaiden is outwardly healthy and energetic. His parents check his blood sugar three times a day, and he sees the doctor monthly now, with visits to the transplant experts every 3 months.

Thomas said NIH medical expertise was especially welcome during Jaiden's ordeal. "Dr. [David] Harlan [chief of NIDDK's Diabetes Branch] was very helpful answering our questions about the transplant procedures. All of my coworkers were really helpful and comforting, really mind-settling."

Because Jaiden spent so much time in the hospital—much of it without the ability to take food by mouth—he has had to regain two key oral functions: eating, which came quickly, and language acquisition, which was somewhat stunted by his having missed the "babbling" stage of speaking. "He didn't interact with other kids while in the hospital, except through a glass window," Thomas said. A speech pathologist has been helping Jaiden overcome his language deficits. "His vocabulary has gotten huge," Thomas said, "but he's still acquiring language."

Despite these challenges, Jaiden starts preschool this month with his peers. His face adorns the NMDP's donor registration campaign for 2006. "He's probably not aware of [being a poster boy]," said Thomas, "but if you met him, you'd think that he was," he adds with a laugh.

Thomas, a 6-year NIH veteran, hopes to enjoy a long career here, and wants also to realize a dream of opening a business—a sports bar. Jaiden might one day find himself on a poster there, too. 📌

Whitmer Appointed NEI Executive Officer



David L. Whitmer has been appointed to the position of associate director for management and executive officer of the National Eye Institute. NEI director Dr. Paul Sieving said, "We are very pleased to have an executive officer of David's expertise at the NEI. His extensive managerial experience here at NIH will serve him well in this senior leadership position."

In his new post, Whitmer serves as principal advisor to Sieving on all management issues affecting NEI. This includes managing financial, human resource, information technology and procurement activities and coordinating the institute's ethics and equal employment opportunity and diversity programs. NEI has approximately 520 scientists, clinicians, support staff, volunteers and contractors and an FY 2006 budget in excess of \$670 million.

Before coming to NEI, Whitmer served as executive officer and director of the Division of Management Services, Center for Scientific Review and as chief of the Management Policy and Administrative Services Branch of the National Heart, Lung, and Blood Institute.

He began his NIH career as a presidential management intern in 1993, spending his first year as an administrative officer for the Division of Cancer Etiology at the National Cancer Institute. He then moved to NCI's office of the director, where he served as a management analyst.

Whitmer holds a master's degree in public administration and political science from the University of South Florida in Tampa. 📌

PIONEER

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there is no need to register.

The event opens at 8:15 a.m. with introductory remarks by Zerhouni and NIGMS director Dr. Jeremy Berg, co-chair of the committee that oversees the Pioneer Award program. Most of the day is devoted to individual talks by the 2005 award recipients, with a late-morning shift of gears for the announcement of the 2006 group of awardees. The concluding session, from 3:40 to 5:30 p.m., combines poster presentations by 2004 award recipients and members of their labs with a concurrent reception.

The presenters include:

- Stanford University scientist Karl Deisseroth, who is developing new technologies for the noninvasive imaging and control of brain circuits as they operate in real time within living, intact tissue. He hopes that this work will lead to basic neuroscience insights as well as new understanding of—and treatments for—neurological and psychiatric disorders.
- Vicki Chandler of the University of Arizona, who studies paramutation, a process by which a gene from one parent communicates a change to the corresponding gene from the other parent. Such interactions could contribute to unexpected inheritance patterns and make it difficult to identify genes involved in complex human diseases.

- Leda Cosmides of the University of California, Santa Barbara, who applies evolutionary and computational approaches to the study of human motivation. She is working to identify various factors that influence anger, altruism, and sexual attraction.

- Thomas Rando of the University of Wisconsin, who investigates the effects of aging in stem cells. He is beginning to understand which elements of “youthful” and “aged” cellular environments affect stem cell function.

- Johns Hopkins researcher Nathan Wolfe, who works on three continents and uses methods from virology, ecology, evolutionary biology and anthropology to spot new viruses as they emerge in people.

And that's only a taste of the day's agenda. The other 2005 award recipients who will present their research at the symposium are Hollis Cline of Cold Spring Harbor Laboratory, Titia de Lange of Rockefeller University, Pehr Harbury of Stanford University School of Medicine, Erich Jarvis of Duke University Medical Center, Derek Smith of the University of Cambridge, Giulio Tononi of the University of Wisconsin Medical School, Clare Waterman-Storer of the Scripps Research Institute and Junying Yuan of Harvard Medical School.

The symposium agenda, with links to biographical sketches of the speakers, is at <http://nihroadmap.nih.gov/pioneer/symposium2006/>. 🗺



Film Festival a Big Success

The Comcast Film Festival, held Aug. 11-20 on the grounds of the American Speech-Language-Hearing Association and Strathmore, drew nearly 70,000 guests, said Randy Schools, president of R&W, which coordinates the event. The festival, at which food from local restaurants is sold, benefits three NIH-related charities—Friends of the Clinical Center, Special Love/Camp Fantastic and the Children's Inn. Funds collected by volunteers at the films amounted to over \$16,000 with more money expected from food sales. This year

marked the 10th anniversary of the festival, which began on the NIH campus; over the years it has raised over \$250,000. Largest crowd this year was for Monty Python and the Holy Grail, which drew over 10,000 moviegoers. Shown above are Ron and Debbie Marcus (seated, c); Debbie is with the Clinical Center patient activities department.

Health Disparities

By Dr. Stephen Katz, NIAMS director

Many of the diseases within the mission of NIAMS affect women and minorities disproportionately, both in increased numbers and increased severity. Some examples include lupus, osteoarthritis, scleroderma, fibromyalgia and vitiligo. The institute is particularly focused on reducing health disparities through innovative programs in research, training and education:

- Genetic and risk-factor studies, research registries and more extensive undertakings like the Osteoarthritis Initiative and the Lupus in Minority Populations: Nature vs. Nurture (LUMINA) study all help to expand our understanding of health disparities.
- The NIAMS community-based medical research initiative, the Health Partnership Program, aims to better understand the morbidity and mortality associated with arthritis and other rheumatic diseases, primarily in the African-American and Hispanic/Latino communities in the metropolitan area.
- The NIAMS-initiated Collaborative Arthritis and Musculoskeletal and Skin Diseases Sciences Award supports research collaborations between investigators at institutions with substantial minority enrollment and scientists at research-intensive institutions.
- Our comprehensive program of information dissemination targets minority populations through a Spanish web site, toll-free information line, non-English and bilingual health information publications and special outreach efforts to African-American, Hispanic/Latino, Asian, Native American and Alaska Native communities.

Health disparities research and education are critical to our mission success. NIAMS will continue to collaborate with the Office of Research on Women's Health and the National Center on Minority Health and Health Disparities, and to seek new and innovative ways to discover, understand and eliminate health differences affecting America's many populations.



"Developing successful programs to understand and eliminate health disparities based on objective outcomes is an important step towards reducing societal tensions and improving our nation's health."

—Dr. Gregory Dennis, director, Clinical Care and Training

NIDDK's Briggs Leaves, Star Named Acting Division Director

Dr. Josephine Briggs, director of NIDDK's Division of Kidney, Urologic and Hematologic Diseases, recently left NIH to become a senior scientific officer at Howard Hughes Medical Institute in Chevy Chase, where she will participate in oversight of the Howard Hughes Investigator program. In 9 years at NIH, she established the National Kidney Disease Education Program, was an effective spokesperson for KUH programs and recruited top scientists

to guide education and research programs. She also participated in cross-NIH activities such as the trans-NIH zebrafish committee and the Roadmap's NIH-RAID program. Dr. Robert Star has been named acting director of the division until a permanent replacement is appointed. He is a nephrologist and has been senior scientific advisor in the KUH division since 1999. In addition, he has been senior advisor for clinical research in the NIH Office of Science Policy and Planning and has been engaged in NIH Roadmap initiatives for re-engineering the clinical research enterprise.

BRIGGS PHOTO COURTESY OF PAUL FETTERS



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NIH Training Center Classes

The Training Center supports the development of NIH human resources through consultation and provides training, career development programs and other services designed to enhance organizational performance. For more information call (301) 496-6211 or visit <http://LearningSource.od.nih.gov>.

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NIH Welcomes 30 New Clinical Fellows

Thirty medical students representing 19 schools from around the country have been selected for fellowships in the 2006-2007 Clinical Research Training Program (CRTP) for Medical and Dental Students at NIH. The recipients, who have completed clinical rotations at their home institutions, arrived this summer to begin 12 months of clinical and translational research training in their chosen field. This is the program's 10th year.

The training program, established at NIH in 1997 with 9 fellows, provides creative, research-oriented students with an opportunity to learn about clinical research early in their careers. Since 1998, the program has been supported jointly by NIH and the Foundation for the National Institutes of Health through grants from Pfizer Inc. as part of the company's commitment to public-private partnerships. The partnership included 15 students annually starting in 1998. In 2004, the program was expanded to accept 30 students a year thanks to support through the NIH Roadmap as part of its Re-engineering the Clinical Research Enterprise initiative.

One hundred and sixty students have participated in the program to date. A committee of established clinical researchers at NIH reviews and makes selections based on applications received from qualified students around the country. This year's recipients were selected from a field of 80 applicants.

"While at NIH, the fellows are paired with a renowned investigator as a mentor," said CRTP director Dr. Frederick Ognibene. "During the year-long experience the students learn the principles of clinical research, write a research protocol and conduct either clinical or translational research alongside some of the most prominent researchers in the world today."



Healthy Children Needed

Healthy child volunteers (ages 8-12) are needed for a brain-imaging study of attention. The study consists of two visits. All procedures are non-invasive; no blood draws will be performed. Compensation is provided for each visit. For more information call Meryl Wagman at (301) 402-3893.

Study of Fibroids Needs Women

Women ages 33-50 suffering with fibroids are invited to participate in an NIH study. Compensation is provided. Call 1-866-444-2214 (TTY 1-866-411-1010) for information. Refer to study o6-CH-0090.

Have Enlarged Gums?

Do you have enlarged gums and are you taking dilantin, cyclosporine or calcium-channel blockers? If so, take part in an NIH study. Call 1-866-444-2214 (TTY 1-866-411-1010).

HIV-Positive Volunteers

HIV+ volunteers who are off anti-HIV medications and who have a CD4+ count of 300 or greater are needed for a research study. Compensation is provided. For more information call 1-866-444-2214 (TTY 1-866-411-1010).

Follicular Lymphoma Vaccine Study

Your own body may be your best defense. Patients who have not had chemotherapy are asked to call for a lymphoma vaccine study. Call 1-866-444-2214 (TTY 1-866-411-1010).

Men with Osteoarthritis Sought

A study of osteoarthritis is recruiting men ages 30-65. They can take part in NIH study o4-AT-0239 evaluating hormones in men with osteoarthritis pain. Compensation is provided. Call 1-866-444-2214 (TTY 1-866-411-1010).

Healthy Adults Sought

NIH invites healthy adults to participate in a clinical study involving different vaccines and blood draws. Call 1-866-444-2214, or TTY 1-866-411-1010, for information. Participants will be compensated.

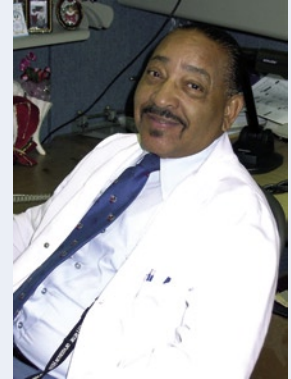
Healthy Volunteers Needed

NICHD is seeking healthy volunteers, ages 18-45, to participate in a typhoid fever vaccine study (o6-CH-0070) conducted at the Clinical Center. Compensation is provided. Call 1-866-444-2214 (TTY 1-866-411-1010).

People with Tongue Problems Needed

Individuals with tongue weakness or tongue movement coordination problems are needed for a study. Call 1-866-444-2214 (TTY 1-866-411-1010).

NIH Environmental Specialist Lee Dies



John Curtis Lee, 78, who retired from NIH as an environmental specialist last January after a 56-year career here, died Mar. 7 in Frederick after an extended illness. He held a variety of positions at NIH before moving to the Division of Safety and then the Division of Environmental Protection.

"He quickly became a valued member of Environmental Protection and is sorely missed by all who knew him," said his former supervisor Jim Carscadden, chief of DEP's Environmental Compliance Branch, Office of Research Facilities.

Born in Hopehill, Md., Lee graduated from Lincoln High School in 1944 and attended Morgan State University.

He served as a logistic specialist in the U.S. Army, then joined NIH, where he served in numerous positions before finishing his career as an environmental specialist. He was also employed at Microbiologic for 20 years in a building services role.

Lee was an avid sports fan and had played baseball for the Hopehill Wildcats and Frederick Bombers. He also enjoyed bowling and cards.

He is survived by his wife, Fay Lee, and by six daughters, three sons, three sisters, 19 grandchildren and three great-grandchildren.



NIDA director Dr. Nora Volkow unveils new report on drug abuse treatment for criminal justice populations.

NIDA Recommends Treating Drug Abusers To Save Money, Reduce Crime

The National Institute on Drug Abuse released a report on July 24 showing that effective treatment for drug abusers in the criminal justice system can reduce recidivism, save communities money and reduce crime. The report, *Principles of Drug Abuse Treatment for Criminal Justice Populations*, outlines 13 proven components for treatment of drug abusers, leading to lower rates of criminal activity and cutting societal costs. For example, every dollar invested in addiction treatment yields a \$4 to \$7 reduction in drug-related crime.

The report was unveiled by NIDA director Dr. Nora Volkow at a national press conference in Chicago that highlighted innovative criminal justice substance abuse programs, including a pilot project to train judges about the neuroscience of addiction so they can be better prepared to place addicted defendants in adequate treatment programs.

"Principles of Drug Abuse Treatment for Criminal Justice Populations summarizes more than three decades of research in terms of understanding the effects of drugs on the brain and the effects of treatment in the criminal justice system," said Volkow. *"Its purpose is to help merge the cultures of public safety and public health and address an extraordinarily important problem."*

She was joined by several former drug-abusing offenders whose lives have dramatically changed because of successful treatment programs.

"Treatment saved my life," said Cheryl Cline, 29. *"Without the counseling programs of the Illinois prison system, I would not be here today, celebrating 3 years of sobriety—happy, healthy and not only a person that I can be proud of, but one that my parents can be proud of too."* After addiction to crack cocaine led to her arrest and a sentence of 4 years in prison, Cline entered an intensive drug treatment program and is now living drug-free and is dedicated to helping others with substance-abuse problems.

The report recommends recognition that drug addiction is a disease of the brain that affects behavior, that recovery requires effective individualized treatment and that continuity of care is critical for drug abusers re-entering the community after incarceration. The publication also includes answers to frequently asked questions about addiction as a chronic disease; co-occurring mental, emotional and environmental conditions that make relapse likely upon return to society; components of treatment programs; cost-effectiveness of treatment; and the role of medication in treating offenders with substance abuse.

The publication will be marketed extensively to more than 175,000 organizations and individuals, including criminal justice administrators, prison and correctional staff, drug abuse treatment providers, policymakers, state and local health departments, epidemiologists and researchers, public health and safety professionals and schools of public health and criminal justice.

Principles of Drug Abuse Treatment for Criminal Justice Populations can be obtained from NIDA's web site <http://www.drugabuse.gov> or by calling 1-800-729-6686. The web site also contains two slide presentations, criminal justice-related fact sheets and congressional testimony and links to additional resources.



Left:
Cheryl Cline, former offender in recovery from drug addiction, shares her experience.

Below:
Chicago Mayor Richard M. Daley expresses support for the new NIDA recommendations.

